SYSTEM AND METHOD OF PROVIDING MASK QUALITY CONTROL

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ABSTRACT

A simulated wafer image of a physical mask and a defect-free reference image are used to generate a severity score for each defect, thereby giving a customer meaningful information to accurately assess the consequences of using a mask or repairing that mask. The defect severity score is calculated based on a number of factors relating to the changes in critical dimensions of the neighbor features to the defect. A common process window can also be used to provide objective information regarding defect printability. Certain other aspects of the mask relating to mask quality, such as line edge roughness and contact corner rounding, can also be quantified by using the simulated wafer image of the physical mask.